CLAIMS LISTING

1-3.(cancelled)

4.(currently amended) ~~Storage~~ Method of producing a stimulable phosphor screen or panel according to claim 13 ~~claim 1~~, wherein said phosphor is a CsBr:Eu phosphor.

5-6.(cancelled)

7.(currently amended) ~~Storage~~ Method of producing a stimulable phosphor screen or panel according to claim 4 ~~claim 1~~, wherein said ~~phosphor is a~~ CsBr:Eu ~~stimulable~~ phosphor~~,~~ is prepared by a method comprising the steps of :

- mixing said CsBr with between 10^{-3} and 5 mol % of a Europium compound selected from the group consisting of EuX'_2, EuX'_3 and EuOX', X' being a member selected from the group consisting of F, Cl, Br and I,
- firing said mixture at a temperature above 450 °C
- cooling said mixture and
- recovering the CsBr:Eu phosphor.

8.(cancelled)

9.(currently amended) Method of producing a stimulable phosphor screen or panel ~~A binderless storage phosphor~~

~~screen~~ according to claim 4 ~~claim 1~~, ~~containing a~~ wherein said CsBr:Eu ~~stimulable~~ phosphor~~, wherein said screen~~ is prepared by a method comprising the steps of :

- mixing CsBr with between 10^{-3} and 5 mol % of a Europium compound selected from the group consisting of EuX'_2, EuX'_3 and EuOX', X' being a halide selected from the group consisting of F, Cl, Br and I;
- bringing said mixture in condition for vapor deposition and
- depositing said mixture on a substrate by a method selected from the group consisting of physical vapor deposition, thermal vapor deposition,~~,~~ chemical vapor deposition, electron beam deposition, radio frequency deposition and pulsed laser deposition.

10-12.(cancelled)

13.(currently amended) Method of producing a stimulable phosphor screen or panel ~~according to claim 7,~~ characterized in that during or after at least one of the manufacturing steps a radiation exposure treatment is given with energy from radiation sources emitting ~~short~~

ultraviolet radiation in the range from 150 nm to 300 nm with an energy of at least 10 mJ/mm^2.

14-18.(cancelled)

19.(currently amended) Method of producing a stimulable phosphor screen or panel ~~Method for producing a binderless storage phosphor screen~~ according to claim 4 wherein ~~claim 1~~, said CsBr:Eu phosphor is prepared by a method comprising the steps of :

- providing a CsBr:Eu storage phosphor
- vacuum depositing said phosphor on a substrate

characterized in that during said vacuum depositing step said substrate is kept at a temperature T, such that 50 °C ≤ T ≤ 300 °C and that said vacuum deposition proceeds in an Ar-atmosphere with an Ar-pressure of at most 3 Pa~~, characterized in that during or after at least one of the said steps a radiation exposure treatment is given with energy from radiation sources emitting short ultraviolet radiation in the range from 150 nm to 300 nm with an energy of at least 10 mJ/mm^2~~.

20-22.(cancelled)

23.(currently amended) Method of producing a stimulable phosphor screen or panel ~~Method for producing a binderless storage phosphor screen~~ according to claim 4 wherein ~~claim 1~~, said CsBr:Eu phosphor is prepared by a method comprising the steps of :

- combining phosphor precursors for a CsBr:Eu storage phosphor,

- vacuum depositing said combination of phosphor precursors on a substrate characterized in that during said vacuum depositing step said substrate is kept at a temperature T, such that 50 °C ≤ T ≤ 300 °C and said vacuum deposition proceeds ion an Ar-atmosphere with an Ar-pressure of at most 3 Pa~~, characterized in that during or after at least one of the said steps a radiation exposure treatment is given with energy from radiation sources emitting short ultraviolet radiation in the range from 150 nm to 300 nm with an energy of at least 10 mJ/mm^2~~.

24-25.(cancelled)

26.(original) Method of producing a stimulable phosphor screen or panel ~~Method for producing a binderless CsBr:Eu phosphor screen~~, according to claim 4 ~~claim 3~~, said CsBr:Eu phosphor

is prepared by a method comprising the steps of :

- mixing or combining CsBr with between 10^{-3} mol % and 5 mol % of a europium compound,
- vapor depositing that mixture onto a substrate, forming a binderless phosphor screen,
- cooling said phosphor screen to room temperature,
- bringing said phosphor screen to a temperature between 80 and 220 °C and
- maintaining it at that temperature for between 10 minutes and 15 hours~~, characterized in that during or after at least one of the said steps a radiation exposure treatment is given with energy from radiation sources emitting short ultraviolet radiation in the range from 150 nm to 300 nm with an energy of at least 10 mJ/mm^2~~.

27-28. (cancelled)

29. (currently amended) Method of producing a stimulable phosphor screen or panel ~~Method of producing a stimulable phosphor screen or panel~~ according to claim 13 ~~claim 1~~, ~~said screen or panel having homogeneous speed distribution over its surface by radiation exposure treatment with energy from a radiation source emitting short ultraviolet~~

~~radiation in the range from 150 nm to 300 nm to the said storage phosphor plate or panel originally having inhomogeneous speed distribution over its panel surface,~~ wherein said radiation exposure treatment proceeds by the step of compensating deviations from speed homogeneity point by point by scanning the panel with said radiation source by the step of emitting variable energy amounts in order to compensate for ~~the~~ said deviations.

30-32. (cancelled)

33. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 13, wherein said radiation exposure treatment is given with a radiation source ~~is~~ selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a ~~quadruplicated~~ frequency enhanced diode lasers ~~, Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, ~~a~~ dye ~~laser~~ lasers having an ultraviolet emitting dye and~~,~~ ~~an~~ excimer laser ~~and a frequency-doubled or quadruplicated diode laser~~.

34. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 4 ~~claim 14~~,

wherein said radiation exposure treatment is given with a radiation source ~~is~~ selected from the group consisting of a mercury vapor lamp ~~at 254 nm~~, a deuterium lamp, a xenon lamp, a krypton lamp, a ~~quadruplicated -~~ frequency enhanced diode lasers ~~- Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, a dye ~~laser~~ lasers having an ultraviolet emitting dye and~~, an~~ excimer laser ~~and a frequency-doubled or quadruplicated diode laser~~.

35. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 29 ~~claim 15~~, wherein said radiation exposure is given with a radiation source ~~is~~ selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, ~~a quadruplicated -~~ frequency enhanced diode layers ~~- Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, ~~a~~ dye ~~laser~~ lasers having an ultraviolet emitting dye and, ~~an~~ excimer laser ~~and a frequency-doubled or quadruplicated diode laser.~~

36. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 77 ~~claim 16~~, wherein said radiation source is selected from the group

consisting of a mercury vapor lamp ~~at 254 nm~~, a deuterium lamp, a xenon lamp, a krypton lamp, a ~~quadruplicated~~ frequency enhanced diode lasers ~~, Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser, a~~ dye ~~laser~~ lasers having an ultraviolet emitting dye and~~, an~~ excimer lasers ~~and a frequency-doubled or quadruplicated diode laser~~.

37. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 78 ~~claim 17~~, wherein said radiation source is selected from the group consisting of a mercury vapor lamp ~~at 254 nm~~, a deuterium lamp, a xenon lamp, a krypton lamp, a ~~quadruplicated~~ frequency enhanced diode lasers ~~, Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser, a~~ dye ~~laser~~ lasers having an ultraviolet emitting dye and~~, an~~ excimer lasers ~~and a frequency-doubled or quadruplicated diode laser~~.

38. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 79 ~~claim 18~~, wherein said radiation source is selected from the group consisting of a mercury vapor lamp ~~at 254 nm~~, a deuterium lamp, a xenon lamp, a krypton lamp, a ~~quadruplicated~~ frequency enhanced diode lasers ~~, Nd:YAg, Nd:YFL, a Nd:YVO~~

~~or an Alexandrite laser, a~~ dye ~~laser~~ lasers having an ultraviolet emitting dye and~~, an~~ excimer lasers ~~and a frequency-doubled or quadruplicated diode laser~~.

39. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 35 ~~claim 19~~, wherein said ~~radiation source is selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated~~ - frequency enhanced diode lasers are selected from - Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, a dye laser, an excimer laser and a frequency-doubled or quadruplicated diode laser~~.

40. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 36 ~~claim 20~~, wherein said ~~radiation source is selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated~~ - frequency enhanced diode lasers are selected from - Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, a dye laser, an excimer laser and a frequency-doubled or quadruplicated diode laser~~.

41. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 37 ~~claim 21~~, wherein said ~~radiation source is selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated -~~ frequency enhanced diode lasers ar selected from - Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, a dye laser, an excimer laser and a frequency-doubled or quadruplicated diode laser~~.

42. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 38 ~~claim 22~~, wherein said ~~radiation source is selected from the group consisting of a mercury vapor lamp at 254 nm, a deuterium lamp, a xenon lamp, a krypton lamp, a quadruplicated -~~ frequency enhanced diode lasers are selected from - Nd:YAg, Nd:YFL, a Nd:YVO or an Alexandrite laser~~, a dye laser, an excimer laser and a frequency-doubled or quadruplicated diode laser~~.

43-52. (cancelled)

53. (currently amended) Method of producing a stimulable phosphor screen or panel according to claim 35 ~~claim 33~~,

wherein said excimer lasers are ~~radiation source is selected from the group of~~ gas excimer lasers ~~consisting of~~ selected from F_2 , ArF, KrF, XeBr and XeCl.

54.(currently amended) Method of producing a stimulable phosphor screen or panel according to claim 36 ~~claim 35~~, wherein said eximer lasers are ~~radiation source is selected from the group of consisting of~~ gas excimer lasers ~~consisting of~~ selected from F_2 , ArF, KrF, XeBr and XeCl.

55.(currently amended) Method of producing a stimulable phosphor screen or panel according to claim 37, wherein said eximer lasers are ~~radiation source is selected from the group of consisting of~~ gas excimer lasers ~~consisting of~~ selected from F_2 , ArF, KrF, XeBr and XeCl.

56.(currently amended) Method of producing a stimulable phosphor screen or panel according to claim 38 ~~claim 39~~, wherein said eximer lasers are ~~radiation source is selected from the group of consisting of~~ gas excimer lasers ~~consisting of~~ selected from F_2 , ArF, KrF, XeBr and XeCl.

57-75.(cancelled)

76.(new) Method of producing a stimulable phosphor screen or panel of claim 4, wherein said CsBr:Eu phosphor is prepared by a method comprising the steps of:

mixing said CsBr with between 10^{-3} and 5 mol% of a europium compound selected from the group consisting of EuX'_2, EuX'_3 and EuOX', X' being a halide selected from the group consisting of F, Cl, Br and I;

firing said mixture at a temperature above 450°C;

cooling said mixture and recovering the CsBr:Eu phosphor;

making a lacquer comprising said phosphor, at least one polymer binder and at least one solvent; and

coating said lacquer on a substrate and drying said coating.

77.(new) Method of producing a stimulable phosphor screen or panel according to claim 4, wherein said radiation exposure treatment proceeds by the step of compensating deviations from speed homogeneity point by point by scanning the panel with said radiation source by the step of emitting variable energy amounts in order to compensate for said deviations.

78.(new) Method of producing a stimulable phosphor screen or panel according to claim 13 wherein said radiation exposure

treatment proceeds by the step of compensating deviations from speed homogeneity by integrally irradiating the screen or panel, after covering said screen or panel partially with one or more filters having differing densities at differing parts.

79.(new) Method of producing a stimulable phosphor screen or panel according to claim 4 wherein said radiation exposure treatment proceeds by the step of compensating deviations from speed homogeneity by integrally irradiating the screen or panel, after covering said screen or panel partially with one or more filters having differing densities at differing parts.

80.(new) Method of producing a stimulable phosphor screen or panel according to claim 35 wherein said dye lasers are benzene-methanediol or p-terphenyl dye lasers.

81.(new) Method of producing a stimulable phosphor screen or panel according to claim 36 wherein said dye lasers are benzene-methanediol or p-terphenyl dye lasers.

82.(new) Method of producing a stimulable phosphor screen or panel according to claim 37 wherein said dye lasers are benzene-methanediol or p-terphenyl dye lasers.

83.(new) Method of producing a stimulable phosphor screen or panel according to claim 38 wherein said dye lasers are benzene-methanediol or p-terphenyl dye lasers.